2nd Annual Drexel Immune Modulation and Engineering Symposium (IMES)

November 11-13, 2020

Virtual via CVENT Event Hub

Day 1: Wednesday, November 11, 2020 (+4 UTC)	
8:50-9:00 EST	**WELCOME:** KARA SPILLER, PhD (Drexel University)
9:00-9:50 EST	**SESSION I**: **Infectious Diseases and Vaccines I** **MODERATOR:** MICHELE KUTZLER, PhD (Drexel University) • **Plenary Speaker: Jake Brenner, MD, PhD** – *Nanoscale drug carriers for acute infectious and inflammatory diseases (*Director of the Center for Vaccines and Immunology and Georgia Research Alliance Eminent Scholar, Professor of Infectious Diseases, University of Pennsylvania)
9:50-10:00 EST	**BREAK**
10:00-11:00 EST	**SESSION II: Infectious Diseases and Vaccines II** **MODERATOR**: EBONY GARY, PhD (Wistar Institute) • **Drew Weissman, MD, PhD** – *mRNA vaccines for influenza, HSV* (Co-director, Penn Center for AIDS Research, Immunology Core, University of Pennsylvania) • **Emma Reuschel, PhD** – *Synthetic DNA vaccines against emerging infectious diseases* (Research Staff Scientist Vaccine & Immunotherapy Center, Wistar Institute) • **Xun Sun, PhD** – *Delivering mucosal vaccines against infectious diseases* (Professor of Pharmaceutics, Sichuan University)
11:00-11:20 EST	**PANEL DISCUSSION**
11:20-1:00 EST	**BREAK**
1:00-2:00 EST	**SESSION III: Development of Immunotherapies** **MODERATOR**: MICHELE KUTZLER, PhD (Drexel University) • **Paula Oliver, PhD** – *Cullin ligases that regulate immune cell function* (Co-chief, Division of Protective Immunity, Children's Hospital of Philadelphia) • **Eric Appel, PhD** – *Sustained delivery technologies for improving humoral immune responses to vaccines* (Assistant Professor, Materials Science and Engineering, Stanford University) • **Kristy Ainslie, PhD** – *Influence of particle degradation rates on optimization of universal influenza vaccines* (Professor, School of Pharmacy, University of North Carolina, Chapel Hill)
2:00-2:20 EST	**PANEL DISCUSSION**

2:20-2:40 EST	**BREAK**
2:40-3:40 EST	**SESSION IV: Immune-microbiota interactions** **MODERATOR:** SONIA NAVAS MARTIN, PhD (Drexel University) • **Edward M. Behrens, MD** – *Pathogenesis and treatment of cytokine storm syndromes.* (Chief, Division of Rheumatology, Children's Hospital of Philadelphia) • **Alison Carey, MD** – *Modulating the developing lung microbiome to improve the infant response to respiratory viruses* (Associate Professor of Pediatrics, Drexel University College of Medicine, St. Christopher's Hospital for Children) • **Chengcheng Jin, PhD** – *Immune-microbiota interactions in lung cancer.* (Assistant Professor, Department of Cancer Biology, University of Pennsylvania)
3:40-4:00 EST	**PANEL DISCUSSION**
4:00 EST	**DAY 1 CLOSING REMARKS:** MICHELE KUTZLER, PhD (Drexel University)
4:00-5:30 EST	**POSTER LIVE Q&A SESSIONS:** Number 1 - 19

Day 2: Thursday, November 12, 2020 (+4 UTC)	
9:00-9:50 EST	**SESSION V: Cancer Immunotherapies I** **MODERATOR:** HAO CHENG, PhD (Drexel University) • **Plenary Speaker: Darrell Irvine, PhD** – *Vaccine boosting natural and synthetic T cells for cancer immunotherapy* (Professor of Biological Engineering, Massachusetts Institute of Technology)
9:50-10:00 EST	**BREAK**
10:00-11:00 EST	**SESSION VI: Cancer Immunotherapies II** **MODERATOR:** YIZHOU DONG, PhD (Ohio State University) • **Zhen Gu, PhD** – *Platelet-derived immunotherapeutics* (Professor of Bioengineering, Zhejiang University) • **Saar Gill, MD, PhD** – *Engineering immune cells* (Assistant Professor of Medicine, University of Pennsylvania) • **Zhuang Liu, PhD** – *Biomaterials to boost cancer immunotherapy* (Professor of Biomaterials, Soochow University)
11:00-11:20 EST	**PANEL DISCUSSION**
11:20-1:00 EST	**BREAK**

1:00-2:00 EST	**SESSION VII: Cancer Immunotherapies III** **MODERATOR:** PIERLUIGI PORCU, MD (Sidney Kimmel Cancer Center) • **Melody Smith, MD** – *Impact of intestinal microbiota on CAR-T patient outcomes* (Assistant Member, Memorial Sloane Kettering Cancer Center) https://www.mskcc.org/research/ski/labs/members/melody-smith • **Michael J. Mitchell, PhD** – *Lipid nanoparticle-mediated mRNA delivery for CAR-T cell engineering* (Assistant Professor of Bioengineering, University of Pennsylvania) • **Elizabeth Wayne, PhD** – *Biomaterials targeting tumor-associated macrophages* (Assistant Professor of Biomedical Engineering, Carnegie Mellon University)
2:00-2:20 EST	**PANEL DISCUSSION**
2:20-2:40 EST	**BREAK**
2:40-3:40 EST	**SESSION VIII: Immune Tolerance and Regulation** **MODERATOR:** HAO CHENG, PhD (Drexel University) • **Elias Haddad, PhD** – *Targeting follicular helper T cells for HIV vaccines* (Professor of Medicine, Drexel University) • **Stefania Gallucci, MD** – *Immunostimulatory dendritic cells in autoimmunity* (Associate Professor of Microbiology and Immunology, Temple University) • **Ben Keselowsky, PhD** – Tissue-Anchored Enzyme for Suppressive Metabolic Immune Engineering (Professor of Biomedical Engineering, University of Florida)
3:40-4:00 EST	**PANEL DISCUSSION**
4:00 EST	**DAY 2 CLOSING REMARKS:** HAO CHENG, PhD (Drexel University)
4:00-5:30 EST	**POSTER LIVE Q&A SESSIONS:** Number 20 - 38

Day 3: Friday, November 13, 2020 (+4 UTC)	
9:00-9:50 EST	**SESSION IX: Regenerative Medicine I** **MODERATOR:** YINGHUI ZHONG, PhD (Drexel University) • **Plenary Speaker: Jennifer Elisseeff, PhD** – *Biomaterial-mediated control over immune cell interactions* (Professor of Biomedical Engineering, Johns Hopkins University)
9:50-10:00 EST	**BREAK**

10:00-11:00 EST	**SESSION X: Regenerative Medicine II** **MODERATOR:** KAITLYN SADTLER, PhD (NIBIB) • **Jonathan Epstein, PhD** – *Targeting cardiac fibrosis with engineered T cells* (Professor of Cardiovascular Research, Perelman School of Medicine, University of Pennsylvania) • **Wendy Liu, PhD** – *Controlling the inflammatory response to biomaterials* (Associate Professor of Biomedical Engineering, University of California, Irvine) • **Anthal IPM Smits, PhD** – *Development of regenerative scaffolds for heart valve and blood vessel engineering* (Assistant Professor of Biomedical Engineering, Eindoven University of Technology)
11:00-11:20 EST	**PANEL DISCUSSION**
11:20-1:00 EST	**BREAK**
1:00-2:00 EST	**SESSION XI: Neuro-Immune Modulation** **MODERATOR:** YINGHUI ZHONG, PhD (Drexel University) • **Lonnie Shea, PhD** – *Immune cell reprogramming for neuro-immune modulation* (Professor of Biomedical Engineering, Univ. of Michigan) • **Jae Lee, PhD** – *Immunomodulation of central nervous system fibrosis* (Associate Professor of Neurological Surgery, The Miami Project to Cure Paralysis) • **Hao Cheng, PhD** – *PEGylation of nanomaterials enables immune tolerance for treating experimental autoimmune encephalomyelitis* (Associate Professor of Materials Science and Engineering, Drexel University)
2:00-2:20 EST	**PANEL DISCUSSION**
2:20-2:40 EST	**BREAK**
2:40-3:40 EST	**SESSION XII: Talks selected from submitted abstracts (4 at 10min + 5min Q&A)** **MODERATOR:** CHRIS RODELL, PhD (Drexel University) • **Erin O'Brien** – *The Effects of M1 Macrophage Activation on M1-to-M2 Phenotypic Switching* (Graduate Student, Drexel University) • **Stuart Bauer** – *Tolerogenic Artificial Antigen Presenting Cells (TolAPCs) for Type 1 Diabetes Treatment* (Graduate Student, Johns Hopkins University) • **Loek Eggermont, PhD** – *Boosting Regulatory T-cell Induction with Immunoinstructive Cryogel Scaffolds* (Post-Doctoral Student, Northeastern University) • **Fan Zhang, PhD** – *Programming tumor-clearing macrophages with in situ gene therapy* (Post-Doctoral Student, Fred Hutchinson Cancer Research Center)

3:40 EST	**AWARDS CEREMONY & CLOSING REMARKS:** CHRIS RODELL, PhD (Drexel University)